STATE OF MARYLAND

DHMH

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September 03, 2009

Public Health & Emergency Preparedness Bulletin: # 2009:34 Reporting for the week ending 08/29/09 (MMWR Week #34)

CURRENT HOMELAND SECURITY THREAT LEVELS

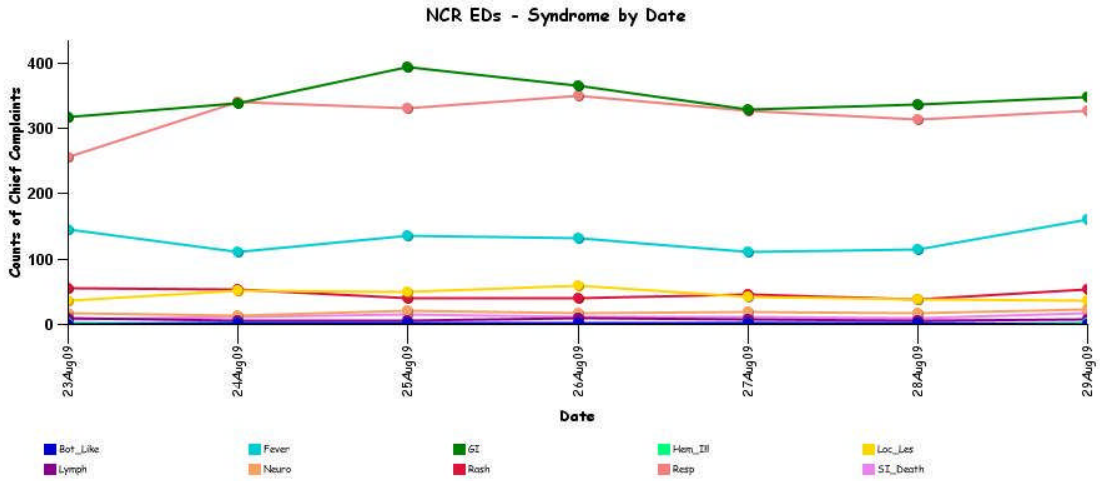
National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

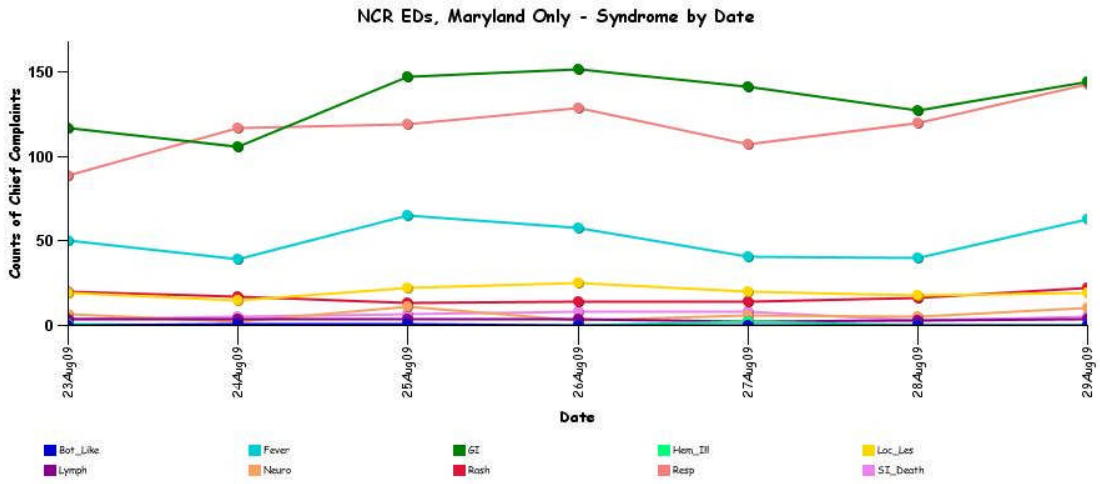
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

****Data for graph of NCR EDs is not complete due to technical issues.**

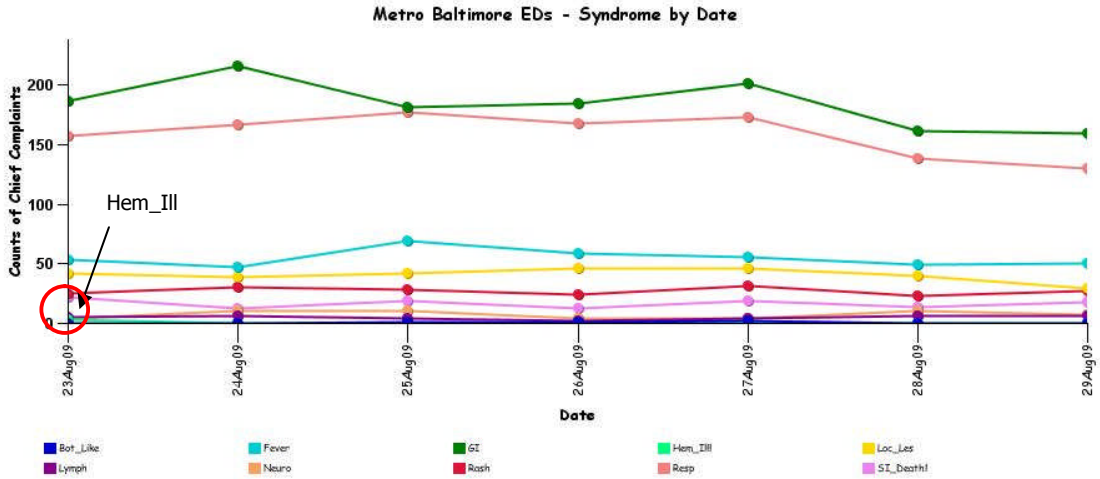


* Includes EDs in all jurisdictions in the NCR (MD, VA, DC) under surveillance in the ESSENCE system.

****Data for graph of NCR EDs, Maryland Only is not complete due to technical issues.**

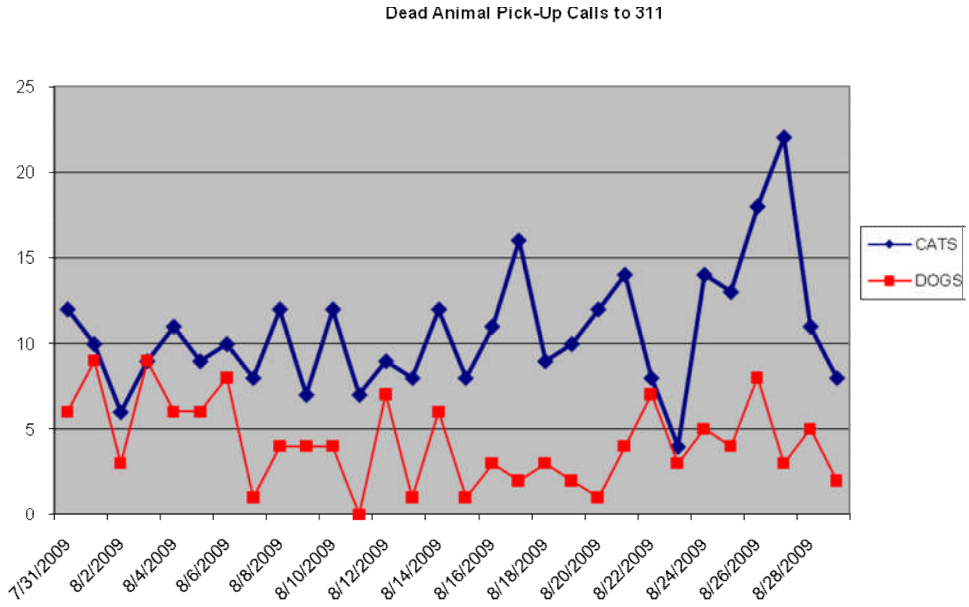


* Includes only Maryland EDs in the NCR (Prince George's and Montgomery Counties) under surveillance in the ESSENCE system.



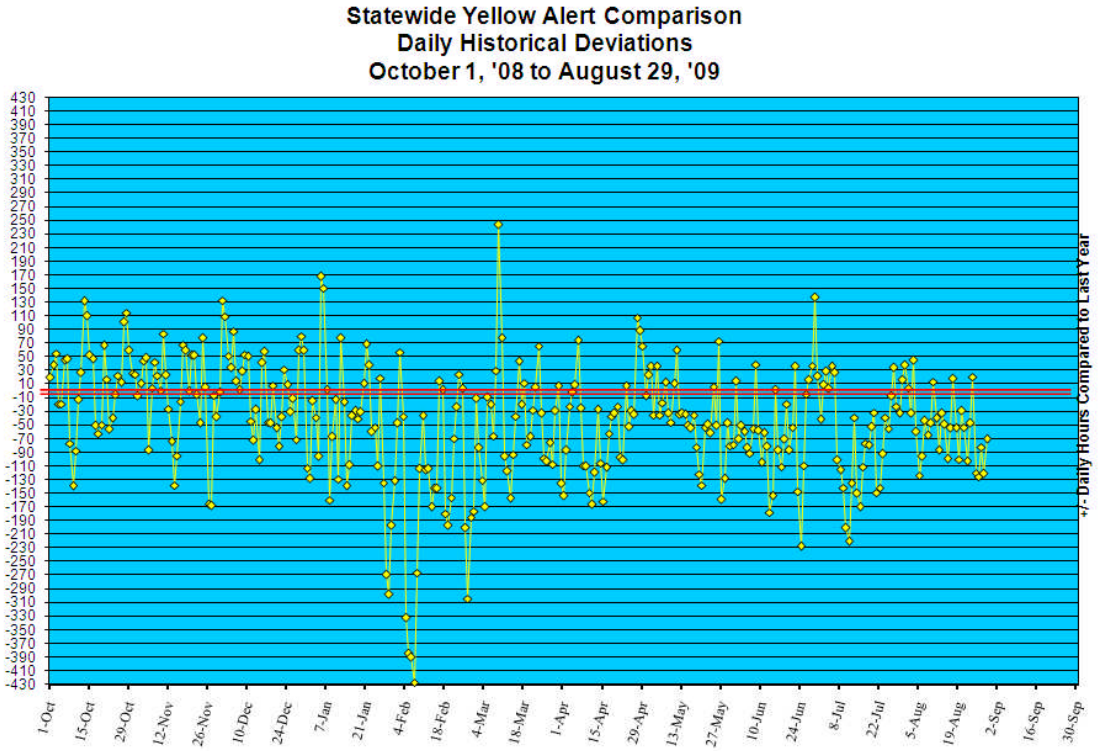
* Includes EDs in the Metro Baltimore region (Baltimore City and Baltimore County) under surveillance in the ESSENCE system.

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/08.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to BT for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in July 2009 did not identify any cases of possible terrorism events.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (Aug 23- Aug 29, 2009):	19	0
Prior week (Aug 16- Aug 22, 2009):	14	0
Week#34, 2008 (Aug 17 - Aug 23, 2008):	17	0

OUTBREAKS: 4 outbreaks were reported to DHMH during MMWR Week 34 (August 23- August 29, 2009):

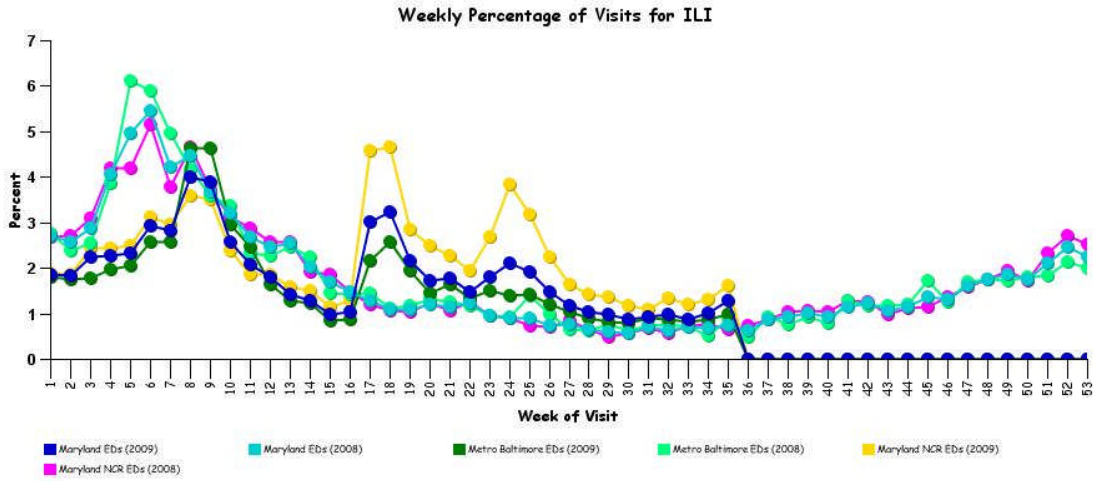
3 Respiratory illness outbreak
1 outbreak of INFLUENZA associated with a Day Care
1 outbreak of ILI/PNEUMONIA associated with a Nursing Home
1 outbreak of INFLUENZA associated with an Adult Day Care

1 Rash illness outbreak
1 outbreak of SCABIES associated with a Hospital

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 34 is REGIONAL.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graph shows the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. This graph does not represent confirmed influenza.



***Graph shows proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.**

PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at: http://preparedness.dhmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Version7.2).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of August 11, 2009, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 438, of which 262 have been fatal. Thus, the case fatality rate for human H5N1 is about 60%.

H1N1 INFLUENZA (Swine Flu):

INFLUENZA PANDEMIC (H1N1), ANIMAL HEALTH (Chile): 27 Aug 2009, The detection of an H1N1 virus in turkeys in Chile raises concern that poultry farms elsewhere in the world could also become infected with the pandemic flu virus currently circulating in humans, the Food and Agriculture Organization of the United Nations (FAO) said. Chilean authorities reported on 20 Aug that the pandemic H1N1/2009 virus was present in turkeys in 2 farms near Valparaiso, Chile. "However, the discovery of the virus in turkeys does not pose any immediate threat to human health and turkey meat can still be sold commercially following veterinary inspection and hygienic processing. The reaction of the Chilean authorities to the discovery of H1N1 in turkeys, prompt reporting to international organizations, establishing a temporary quarantine, and the decision to allow infected birds to recover rather than culling them is scientifically sound," said FAO's interim chief veterinary officer, Juan Lubroth. Once the sick birds have recovered, safe production and processing can continue. They do not pose a threat to the food chain. The current H1N1 virus strain is a mixture of human, pig and bird genes and has proved to be very contagious but no more deadly than common seasonal flu viruses. However, it could theoretically become more dangerous if it adds virulence by combining with H5N1, which is far more deadly but harder to pass along among humans. "Chile does not have H5N1 flu. In South East Asia, where there is a lot of the virus circulating in poultry, the introduction of H1N1 in these populations would be of a greater concern," said Lubroth. This is one reason the FAO encourages improved monitoring of health among animals and ensuring that hygienic and good farming practice guidelines are followed, including protecting farm workers if animals are sick and not allowing sick workers near animals. This is now the 4th country that is investigating the spill-over of H1N1/2009 virus from farm workers showing flu-like illness to animals, with swine becoming infected in Canada, Argentina and Australia. The emergence of new influenza virus strains capable of affecting humans and domestic animals remains a broader, more general concern that is being closely monitored by the FAO, the World Organization for Animal Health (OIE), and the WHO.

INFLUENZA PANDEMIC (H1N1), SURVEILLANCE (New Zealand): 27 Aug 2009, Following the detection of imported cases of pandemic influenza A (H1N1) on 25 Apr 2009, New Zealand implemented containment measures that appeared to slow establishment of the pandemic during May 2009. The pandemic accelerated markedly in June 2009, reaching a peak within 4 to 6 weeks, and has been declining since mid-July 2009. By 23 Aug 2009, there had been 3179 recorded cases (97.8 per cent reported as confirmed), including 972 hospitalizations, 114 intensive care admissions, and 16 deaths. Influenza-like illness (ILI) surveillance in general practice suggests that 7.5 per cent of the population of New Zealand had symptomatic infection, giving a case fatality ratio of 0.005 per cent. Hospitalizations were markedly higher for Maori and Pacific peoples compared with Europeans and others. The apparent decline of the pandemic (shown by all surveillance systems) cannot be fully explained. New Zealand remains in the middle of its traditional influenza season; the influenza A (H1N1) virus appears relatively infectious, and we estimate that only about 11 per cent of the population has been infected by this novel agent.

INFLUENZA PANDEMIC (H1N1), TAMIFLU SHELF-LIFE: 26 Aug 2009, The World Health Organization said on 18 Aug 2009 it was up to national regulatory authorities to decide whether to extend the shelf life of the flu drug Tamiflu by 2 years, as recommended by Swiss drug maker Roche. The United States, Canada, Australia, Hong Kong and the European Union's drug watchdog have extended Tamiflu's shelf life to 7 years from 5 after company data showed the active ingredient's longer stability, a Roche spokeswoman said. Tamiflu, known generically as oseltamivir, is the front line antiviral being used against the influenza pandemic (H1N1) 2009 virus. Capsules kept in government stockpiles worldwide or currently on the market carry a 5-year expiry date. "It is WHO's view that shelf-life extensions are a matter for national regulatory authorities," WHO spokesman Gregory Hartl said in a statement. The WHO says most people infected with H1N1 have mild symptoms, and Tamiflu should be given only to flu sufferers at high risk, including pregnant women or those with complications such as pneumonia. The European Medicines Agency has said it is acceptable to apply the extension to current stocks of the drug during a flu pandemic, a decision followed last month by Switzerland. "We are working with health authorities to also extend the shelf life in other markets because it makes sense," Roche

spokeswoman Claudia Schmitt said. Roche was providing its stability data to governments to help them extend the shelf life of their stockpiles, she said. "Governments have had stockpiles since the bird flu time," she added, referring to the H5N1 avian flu strain which erupted in 2003 and also responds to treatment with the antiviral. Since 2004, Roche has fulfilled government orders for 270 million Tamiflu treatment courses in 96 countries, Schmitt said. The drug manufacturer has donated about 10.65 million treatment courses to the WHO for distribution and use in the poorest countries. The 1st donation to the U.N. agency was made in 2004 and the 2nd in May 2009, as H1N1 spread more widely. "A large amount of the 2nd donation is newly produced. It is a product that will expire many years from now," she said.

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

EASTERN EQUINE ENCEPHALITIS, EQUINE (North Carolina): 28 Aug 2009, A horse has died from a case of eastern equine encephalitis [EEE] in Scotland County, North Carolina, a state official confirmed on Wednesday. Carl Williams, state public health veterinarian, said health officials verified that a local horse contracted EEE and had to be put down on 12 Aug 2009. Williams said while this is the 1st confirmed case of EEE in the county in 2009, other counties have also had equine deaths from the disease. "Horses act as sentinels for this particular disease," Williams said. He said the disease is likely to be "circulating in the mosquito population." He recommends humans to wear long-sleeved shirts, limit their outdoor activity, and use insect repellant. Williams also suggests that horses be vaccinated for the disease. There is currently no human vaccination for EEE. EEE is a mosquito borne viral disease that causes disease in humans, horses, and some bird species, according to the CDC. The disease has a high mortality rate. There is an approximate 50 per cent survival rate. About 5 people in the United States contract the disease annually. While this is the 1st reported case in Scotland County in 2009, 3 counties - Robeson, Bladen and Columbus - form a cluster that have had 4 reported veterinary cases and 5 reported sentinel cases of the disease. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *non suspect case

EASTERN EQUINE ENCEPHALITIS, EQUINE (Virginia): 28 Aug 2009,The Virginia Department of Agriculture and Consumer Services has confirmed 2 more positive cases of EEE in horses for 2009, bringing the total statewide to 8. Most of the cases have been in the Tidewater area with one from Loudoun County. The other new equine case is a horse from Southampton County. Neither horse had been vaccinated for EEE. An alpaca from Surry County also tested positive for EEE but recovered on her own. VDACS considers this a presumptive case of EEE, along with a goat from Chesapeake that died last month. To date there have been 3 equine cases of EEE in Chesapeake, two in Suffolk, and one each in Loudoun, Prince George and Southampton counties. "EEE is a serious condition," explains Dr Richard Wilkes, state veterinarian. "And unlike West Nile Virus, few horses survive the disease. There is no cure, but there are effective vaccines. So far this year, all of the positive EEE horses had not been vaccinated or hadn't been vaccinated recently for the disease. With a rainy spring and summer and an increase in the mosquito population, I'm not surprised that we're seeing an increase in the incidents of EEE, but I am disappointed that horse owners in the high risk areas of the state are not vaccinating." VDACS encourages horse owners to vaccinate their horses every 6 to 12 months against EEE. This is particularly important in the south eastern region of Virginia, where many veterinarians recommend the 6-month vaccination interval. There is no vaccine for goats or emus. Generally, EEE is transmitted by mosquitoes. Prevention methods besides vaccination that help to protect all species include destroying standing water breeding sites for mosquitoes, use of insect repellents such as DEET and removing animals from mosquito-infested areas during peak biting times, usually dusk to dawn. For more information on EEE in animals, contact the Office of the State Veterinarian or consult local veterinarians. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *non suspect case

INTERNATIONAL DISEASE REPORTS

ANTHRAX, HUMAN, SUSPECTED (India): 27 Aug 2009, A 45 year old dairy laborer was hospitalized on 24 Aug 2009 with suspected human anthrax, an infection contracted from cattle. The laborer, belonging to nearby Meermulikottai village, was admitted to the Government Mohan Kumaramangalam Medical College Hospital here with boils on his hand and was found to be suffering from the rare human anthrax, hospital dean, C Shanmugham, said. Shanmugham said the man, employed by a dairy owner to milk the cattle, had developed the boils after he came in contact with an affected cow. "Since the infection has been detected at an early stage, it can be cured," Shanmugam said, adding the man was being treated in an isolated ward. District Animal Husbandry Department officials who visited the village, however, claimed he was suspected to be suffering from cow pox. They have collected samples from cattle in the area for further testing. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (Kyrgyzstan): 26 Aug 2009, Another human anthrax case has been reported in the south of Kyrgyzstan. A resident of Kyzyl-Kiya town has been hospitalized on suspicion of the dangerous disease, the Emergency Ministry says. Specialists have immediately left for the scene to take preventive and anti-epidemic measures, after samples were sent for laboratory analysis. As the news agency 24.kg earlier reported, doctors hospitalized 18 locals of the Aksy district, Jalalabad region on suspicion of anthrax in June 2009, and some of them were diagnosed positively. After that, over a hundred houses were subjected to anti-epidemic measures. In 2008, 10 residents of southern

Kyrgyzstan were down with anthrax, while one of them died in hospital. In the meantime, according to officials of the Health Care Ministry, the situation is under control. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, BOVINE (Argentina): 25 Aug 2009, An outbreak of anthrax occurred on 20 Aug 2009, in the partido (district) of Carlos Tejedor (Paraje (village): Curary) in the province of Buenos Aires killing 6 adult cattle - British breed of cattle n.o.s., 4-5 years old. The affected herd has 1300 head. Suspecting a clostridial cause the veterinarian had carried out a careful necropsy. However the animals had died suddenly with a bloody extravasation from their natural openings (mouths, nose, anus, and vagina). Following standard Argentine procedure he submitted metacarpal bones and Bacillus anthracis was recovered from the medullae. The herd had not been vaccinated and had no prior history of this disease. However this part of Buenos Aires province has had an ongoing drought problem for over a year. All the carcasses were quickly burnt. There were no human cases involved. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (India): 24 Aug 2009**,** At least 200 children have died in an outbreak of Japanese encephalitis in northern India, health officials say. So far, 900 affected children have been admitted to hospitals in Uttar Pradesh state. Some patients have come from neighboring Bihar state and Nepal. There is no specific cure for the mosquito-borne disease, which has killed thousands in India since 1978. Health experts complain that red tape has prevented development of an effective vaccination program. The disease occurs regularly during India's monsoon. Doctors say children between the ages of 6 months to 15 years are worst affected and most of the victims are poor people from rural areas. "The attack of the encephalitis virus is extremely ferocious this year," says Dr Rashmi Kumar, an expert on Japanese encephalitis at Lucknow Medical College hospital. "Children are developing a serious condition within a day or 2 of getting infected," she says. Health officials in the state capital, Lucknow, say cases of acute encephalitis are being reported mostly from 14 districts of eastern Uttar Pradesh in the foothills of the Himalayas. The low-lying areas are prone to annual floods, and severe water-logging and a lack of sanitation provide a breeding ground for mosquitoes. Doctors say Gorakhpur town is the epicentre of the disease. While there is no specific cure for the disease after it has been contracted, 3 vaccines are in use worldwide that have reportedly been successful in preventing the disease. But India has so far failed to develop an effective vaccination program. Doctors say the vaccine coverage has not been satisfactory this year, with many parents of affected children saying no vaccination was done in their areas. Japanese encephalitis usually hits Uttar Pradesh state in July-August. The disease has recurred annually in eastern regions of the state since 1978. (Viral encephalitis is listed in Category B on the CDC list of Critical Biological Agents) *non suspect case

E. COLI O157, WALES DANCE CAMP (United Kingdom): 23 Aug 2009, Tests are being carried out on a further 13 people thought to have contracted E. coli O157 at a Welsh dance camp. A 9-year-old girl from Denbighshire and a 43-year-old woman from Essex have been described as probable cases. Another 11 people who attended the Dance Camp Wales event in Pembrokeshire have also reported suffering E. coli-like symptoms. Just 2 children, a 7-year-old girl from Denbighshire, who has been treated in hospital, and an 11-year-old, who lives in the West Midlands, have so far been confirmed with E. coli O157. Tests have revealed that both children have been infected by the same strain of the disease. It is thought that the farmland at the Cresselly event could have been the source of the potentially deadly E. coli O157 infection. More than 600 people attended the dance festival which ran from 29 Jul 2009 to 9 Aug 2009. Pembrokeshire Council's public protection department has already made more than 200 phone calls and sent almost 300 e-mail messages to people known to have attended the camp, and is continuing to contact attendees. The organizers of Dance Camp Wales are working closely with both the council and the National Public Health Service (NPHS) to trace everyone who attended the festival. The incubation period for E. coli O157 can range from 1 to 14 days, but is characteristically 3 to 4 days. The length of the illness can vary but people with are usually ill for up to 2 weeks. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *non suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

Surveillance for the 2009 Pandemic Influenza A (H1N1) Virus and Seasonal Influenza Viruses - New Zealand, 2009. MMWR August 28, 2009 / 58(33); 918-921. This report describes the results of analyses from New Zealand's sentinel general practitioner (GP) surveillance system and nonsentinel laboratory surveillance network for the period extending from the week ending May 3 through the week ending August 2. Analyses determined that the number of viruses identified as 2009 pandemic influenza A (H1N1) rapidly overtook the number identified as seasonal influenza, and the peak weekly consultation rate for ILI was three times the peak rate in New Zealand during the same period in 2008. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5833a2.htm

Preparing for the second wave: lessons from current outbreaks. WHO Pandemic (H1N1) 2009 briefing note 9 (28 August 2009). Monitoring of outbreaks from different parts of the world provides sufficient information to make some tentative conclusions about how the influenza pandemic might evolve in the coming months. WHO is advising countries in the northern hemisphere to prepare for a second wave of pandemic spread. This report provides a summary of the worldwide H1N1 situation and expectations for the coming wave.
http://www.who.int/csr/disease/swineflu/notes/h1n1_second_wave_20090828/en/index.html

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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